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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/611,585

07/01/2003

Kent Oertle

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7590

05/05/2006

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EXAMINER

LE, DON P

ART UNIT

PAPER NUMBER

2819

DATE MAILED: 05/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary	Application No. 10/611,585	Applicant(s) OERTLE ET AL.	
	Examiner Don P. Le	Art Unit 2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/23/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18, 22 and 24-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18, 22, 24 and 26-28 is/are rejected.
- 7) ☒ Claim(s) 25, 29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 18, 22, 24 and 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Singh et al. (US 6,118,301).

3. With respect to claim 18, figure 3 of Singh teaches a method of reducing stress across an output circuit (T1A, T1B, T2), comprising:

determining if the output circuit is tri-stated (tristate with enable signal);

determining if a PAD voltage is greater than a predetermined voltage level (see abstract);

enabling the output circuit (enable signal);

turning on a stress circuit comprising at least one p-channel transistor (T9, T10),

dissipating a voltage across the output circuit, **wherein the at least one p-channel transistor comprises a first p-channel transistor (T9) and a second p-channel transistor (T10), wherein a drain of the first p-channel transistor is coupled to a source of the second p-channel transistor; and**

preventing the output circuit from experiencing HCI stress (withstand high voltage prevent HCI stress).

4. With respect to claim 22, figure 3 of Singh discloses at least one p-channel transistor (T19) is coupled to the output circuit.

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5. With respect to claim 24, figure 3 of Singh teaches the output circuit comprises at least one n-channel output transistor (T2).
6. With respect to claim 26, figure 3 of Singh discloses an HCI stress circuit coupled to both an output circuit (T1A, T1B and T2) and a pad (34), the HCI stress circuit consisting of two stacked p-channel transistor devices (T9, T10), said two stacked p-channel transistor devices adapted to limit a duration of a high voltage across the output circuit thereby reducing hot carrier injection stress across the output circuit (by withstanding higher voltage, it prevents hot carrier injection).
7. With respect to claim 27, figure 3 of Singh discloses one of said two stacked p-channel transistor devices is coupled to the output circuit (T9, T10 coupled to output node).
8. With respect to claim 28, figure 3 of Singh discloses the output device comprises at least one n-channel output transistor circuit (T2).

Allowable Subject Matter

9. Claims 25 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
10. The following is an examiner's statement of reasons for allowance:

With respect to claims 25 and 29, the prior art does not teach a stress circuit as claimed coupled to an output circuit having two stack n-channel transistors.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

11. Applicant's arguments with respect to claims 18, 22 and 24-29 have been considered but are moot in view of the new ground(s) of rejection.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Don P. Le whose telephone number is 571-272-1806. The examiner can normally be reached on 7AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Barnie Rexford can be reached on 571-272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

5/2/2006

A handwritten signature in black ink, appearing to read 'Don Le', with a stylized flourish at the end.

**DON LE
PRIMARY EXAMINER**